

~~Surface Water Monitoring Systems Information~~

Long-term USGS Water Quality Network

Stream Monitoring Stations

NMED and the USGS jointly fund the long-term water quality network at several USGS stations in New Mexico (Figure D-1 and Table D-1). All data from these stations are collected by the United States Geological Survey (USGS). All water quality data from these stations are entered into STORE, the USGS computerized data storage system.

9 USGS also runs the National Stream Quality Accounting Network (NASQAN) and the
10 National Water Quality Assessment Program (NAWQA). Stations under these studies were selected to
11 represent outflow from major drainage basins or sub-basins. The primary objective of these
12 networks is to measure any regional variations in water quality and to detect water quality
13 trends. During the period covered by this report, the fixed station sampling network used by NMED
14 consisted of 21 stations on 10 New Mexico streams, one station on Cochiti Lake and one station on the Rio
15 Grande in Texas (Figure 22). All data from these stations are collected by the United States Geological
16 Survey (USGS). All water quality data from these stations are entered into STORET, the EPA computerized
17 data storage system, and WATSTORE, the USGS computerized data storage system (Table 21). Water
18 quality sampling efforts at the 21 stream stations and one lake station in New Mexico are funded jointly by
19 NMED and USGS. The station on the Rio Grande at El Paso is funded by USGS as part of two different
20 longterm projects—the National Stream Quality Accounting Network (NASQAN) and the National Water
21 Quality Assessment Program (NAWQA). Stations under these studies were selected to represent outflow
22 from major drainage basins or sub-basins. The primary objective of these networks is to measure any
23 regional variations in water quality and to detect water quality trends.

~~Special Surveys~~

The Surface Water Quality Bureau of the NMED conducts several special surveys each year on a prioritized basis in selected stream segments. Parameters sampled during these surveys are listed in Table

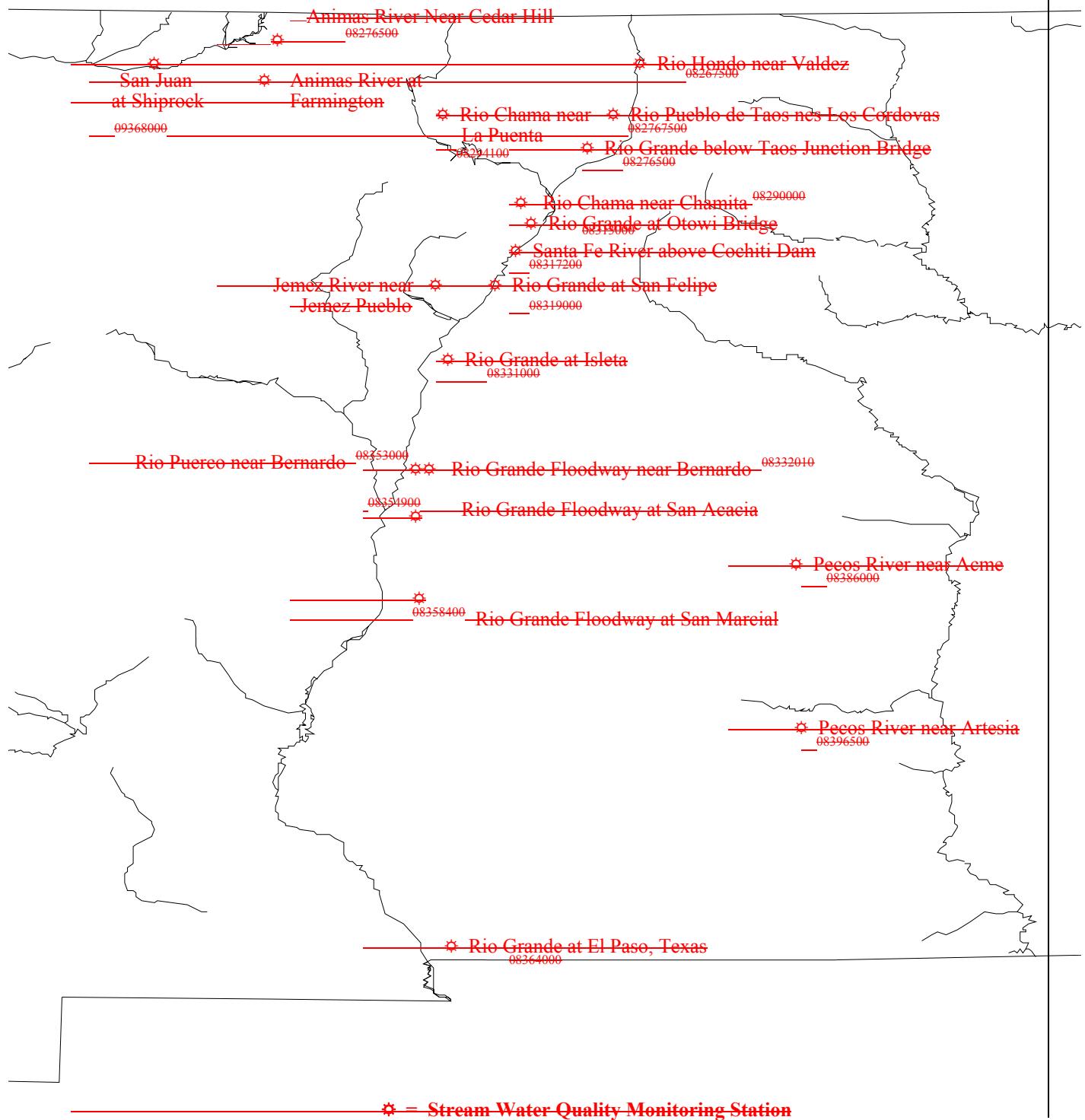
1 23.

2 **Toxics Monitoring**

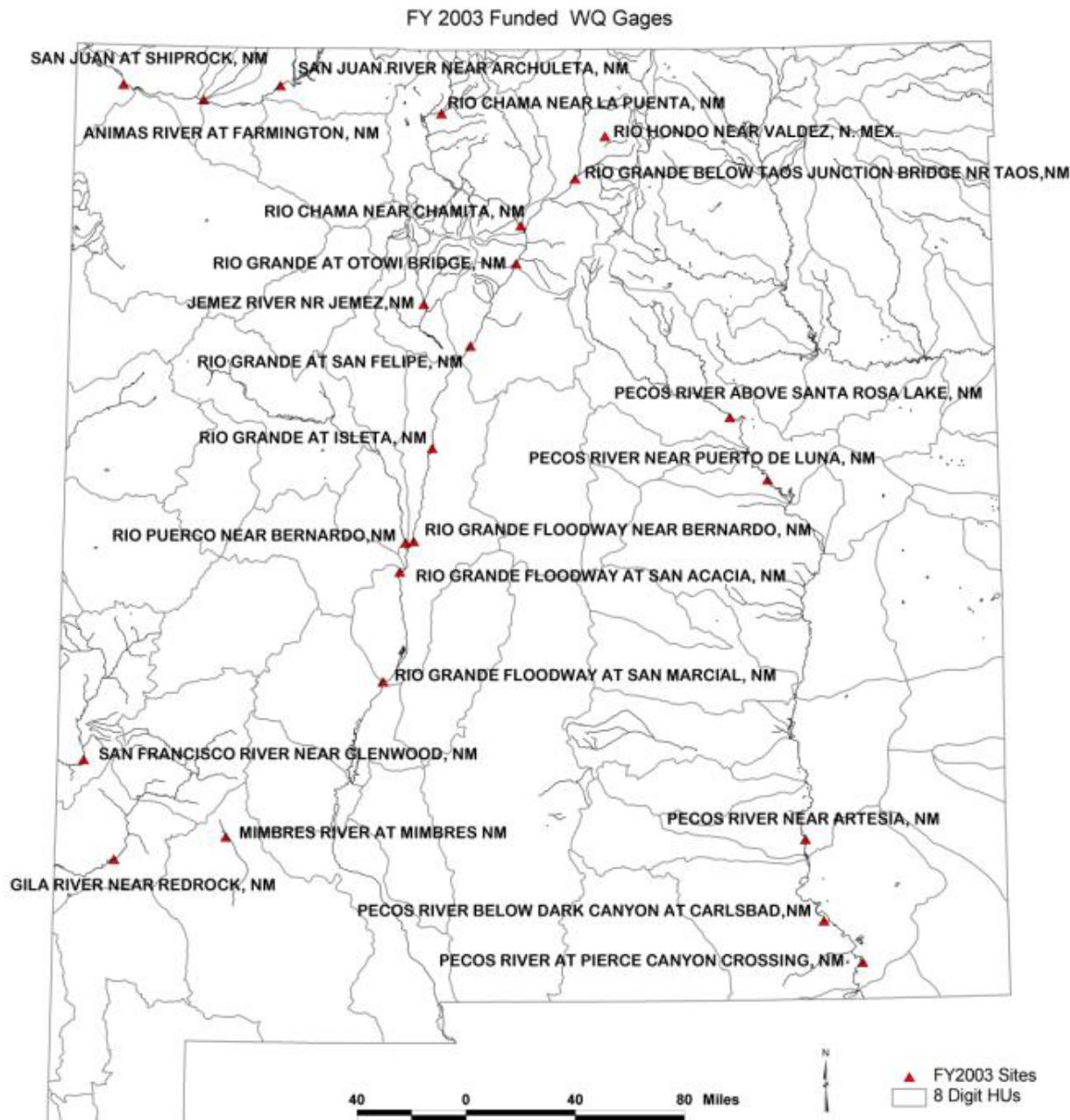
3 Total concentrations of certain trace elements are monitored, generally on a semiannual basis, at all
4 except one of the stations in the New Mexico water quality surveillance network. Bottom material samples
5 are collected annually at all stations and analyzed for the parameters listed. Trace element data are also
6 collected routinely during special surveys. Organics monitored in one special survey conducted during 1996
7 and 1997 on the Navajo River are listed in Table 22. Table 24 lists toxics monitored during a 1998 survey
8 of representative effluent discharges.

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Figure 2224. Location of Stream Monitoring Stations in New Mexico Sampled Regularly by the United States Geological Survey.



1 **Figure D-1. Location of FY2003 USGS Water Quality Monitoring Stations partially funded by**
2 **NMED**



1 **Table D-1. List of FY2003 USGS Stream Water Quality**
2 **Monitoring Stations partially funded by NMED**

USGS Station No.	Location
08267500	Rio Hondo near Valdez
08276500	Rio Grande below Taos Junction Bridge
08284100	Rio Chama near La Puente
08290000	Rio Chama near Chamita
08313000	Rio Grande at Otowi Bridge
08319000	Rio Grande at San Felipe Pueblo
08324000	Jemez River near Jemez Pueblo
08331000	Rio Grande at Isleta Pueblo
08332010	Rio Grande Floodway near Bernardo
08353000	Rio Puerco near Bernardo
08354900	Rio Grande near San Acacia
08358400	Rio Grande Floodway at San Marcial
08382650	Pecos River above Santa Rosa Lake
08383500	Pecos River near Puerto de Luna
08396500	Pecos River near Artesia
08405200	Pecos River below Dark Canyon
08407000	Pecos River at Pierce Canyon
08477110	Mimbres River @ Mimbres
09364500	Animas River at Farmington
09355500	San Juan River at Archuleta
09368000	San Juan River at Shiprock
09431500	Gila River near Red Rock
09444000	San Francisco near Glenwood

1 **Table 21. Location of Current U.S. Geological Survey Stream Quality**
2 **Monitoring Stations funded by the New Mexico Environment Department**

	WATSTORE or STORET Station No.	Location
7	08267500	Rio Hondo near Valdez
8	08276300	Rio Pueblo de Taos below Los Cordovas
9	08276500	Rio Grande below Taos Junction Bridge
10	08284100	Rio Chama near La Puente
11	08290000	Rio Chama near Chamita
12	08313000	Rio Grande at Otwi Bridge
13	08317200	Santa Fe River above Cochiti Lake
14	08319000	Rio Grande at San Felipe Pueblo
15	08324000	Jemez River near Jemez Pueblo
16	08331000	Rio Grande at Isleta Pueblo
17	08332010	Rio Grande Floodway near Bernardo
18	08353000	Rio Puerco near Bernardo
19	08354900	Rio Grande Floodway at San Acacia
20	08358400	Rio Grande Floodway at San Marcial
21	08383000	Pecos River at Santa Rosa
22	08383500	Pecos River near Puerto de Luna
23	08386000	Pecos River near Acme
24	08396500	Pecos River near Artesia
25	09363500	Animas River near Cedar Hill
26	09364500	Animas River at Farmington
27	09368000	San Juan River at Shiprock

1 **Table 22. Parameters and STORET Codes for Organic Chemicals**
2 **Analyzed During the Special Water Quality Surveys**
3 **Conducted in 1996 and 1997.**

7	Aldrin	039330
8	Alpha Benzene Hexachloride	039337
9	Beta Benzene Hexachloride	039338
10	Chlordane, alpha	039348
11	Chlordane, gamma	039810
12	Chloropyrifosier	077969
13	DDD	039360
14	DDE	039365
15	DDT	039370
16	Delta Benzene Hexachloride	034259
17	Dieldrin	039380
18	Endosulfan	039388
19	Endosulfan Sulfate	082623
20	Endosulfan, beta	082624
21	Endrin	039390
22	Endrin Aldehyde	082622
23	Endrin Ketone	078008
24	Gamma BHC(Lindane)	039340
25	Heptachlor	039410
26	Heptachlor Epoxide	039420
27	Hexachlorobenzene	039700
28	Hexachlorocyclopentene	078022
29	Methoxychlor	039480
30	PCB-1232	039492
31	PCB-1242	039496
32	PCB-1248	039500
33	PCB-1254	039504
34	PCB-1260	039508
35	PCP (Pentachlorophenol)	039032
36	Pieloram	039720
37	Pronamide	039080
38	Propachlor	030295
39	Propoxur	030296
40	Silvex	039760
41	Simazine	039055
42	Terbacil	030311
43	Toxaphene	039400
44	Triadimefon	038892
45	Trifluralin	081284

1 **Table 23. Sample Types, Parameters and STORET Codes for Environmental**
 2 **Measurements Performed During Special Surveys Conducted by the New**
 3 **Mexico Environment Department**

TYPE	PARAMETER	STORET CODE
Physical	Conductivity.....	00402
	Temperature.....	00010
	Total non-filterable residue (TSS).....	00530
	Total filterable residue (TDS).....	70300
	Color.....	00081
	Fluoride.....	00951
Chemical	Bicarbonate.....	00440
	BOD _s (5 day).....	00310
	Calcium.....	00916
	Chloride.....	00940
	Magnesium.....	00925
	pH.....	00400
	Potassium.....	00935
	Sodium.....	00930
	Sulfate.....	00945
	Total Kjeldahl nitrogen.....	00625
	Total residual chlorine.....	450060
	Total ammonia nitrogen.....	00610
	Total nitrite + nitrate nitrogen.....	00630
	Total hardness (as CaCO ₃).....	00900
	Total organic carbon	00680
	Total phosphorus.....	00665
	Total alkalinity.....	00410
	Total cyanide.....	00720
	Aluminum dissolved (total).....	01106 (01105)
	Arsenic dissolved (total).....	01000 (01002)
	Barium dissolved (total).....	01005 (01007)
	Beryllium dissolved (total).....	01010 (01012)
	Boron dissolved (total).....	01020 (01022)
	Cadmium dissolved (total).....	01025 (01027)
	Calcium dissolved.....	82036 (82032)
	Chromium dissolved (total).....	01030 (01034)
	Cobalt dissolved (total).....	01035 (01037)
	Copper dissolved.....	01040 (01042)
	Iron dissolved (total).....	01046 (01045)
	Lead dissolved (total).....	01049 (01051)
	Magnesium dissolved.....	82037 (82033)
	Manganese dissolved (total).....	01056 (01055)
	Mercury dissolved (total).....	71890 (71900)
	Molybdenum dissolved (total).....	01060 (01062)
	Nickel dissolved (total).....	01065 (01067)
	Selenium dissolved (total).....	01145 (01147)
	Silicon dissolved.....	01140 (01142)
	Silver dissolved (total).....	01075 (01077)
	Strontium dissolved.....	01080 (01082)
	Tin dissolved (total).....	01140 (01142)
	Vanadium dissolved (total).....	01085 (01087)
	Zinc dissolved (total).....	01090 (01092)
Biological	Fecal coliform bacteria (MF).....	74055
	BOD _s (5 day).....	00310
Radiochemistry	Radium 226 total.....	09501
	Radium 228 total.....	11501
	Radium 226 + 228.....	11503

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Table 24. Toxics Monitored in Selected Point Source Discharges, 1998.

4 Parameter	5 STORET Code
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Water Chemistry	
BOD.....	00310
TSS Residual Total Non-filterable	00530
COD	00340
Phosphate as P.....	00665
Nitrate Nitrogen as N	00630
Ammonia Nitrogen as N.....	00610
Total Kjeldahl Nitrogen as N	00625